

## Network Monitoring & Configuration SINEC NMS with SCALANCE (IK-MONCS)

### Short Description

The complexity and number of participants in Ethernet-based production networks are constantly increasing due to growing requirements. Failure of single devices in such networks may result in loss of production and, at the worst, cause a downtime of the whole production chain. To minimize unproductive times and the resulting costs, transparency and a continuous monitoring of the network is crucial. Additionally, manual setup and managing of device and firewall-/NAT configurations as well as firmware updates can be inefficient and error prone. SINEC NMS is a central solution for monitoring a wide range of different devices in a network as well as for configuration and management of the SCALANCE and RUGGEDCOM network portfolio.

### Objectives

In this course, participants will learn how to use the network monitoring and management system SINEC NMS to monitor, document and configure their network from a central location, as well as to plan, implement and maintain their network monitoring solution. Through in-depth practical exercises you will put the theoretical knowledge into practice.

At the end of the course, you will be familiar with the requirements and solutions for monitoring and managing industrial networks with SINEC NMS, and you will be able to monitor, document and configure industrial networks with SINEC NMS.

### Target Group

Plant Engineers  
Control Engineers  
System Engineers  
Commission Engineers  
Application Engineers  
Service and Maintenance Personnel  
OT and IT Network Engineers  
Technical Sales Personnel

### Content

Fundamentals of network monitoring  
Documentation and inventory of networks to create transparency  
Detection and diagnostics of network events  
Customized and clear depiction of the monitored network  
Evaluation and optimization of the network performance  
Monitoring of third-party devices (manufacturer-independent network monitoring)  
Central user management with UMC (User Management Component)  
Integration of the network monitoring data into a higher-level HMI system  
Implementation of policy-based network configurations with SINEC NMS  
Central Firewall- and NAT-Management  
Network monitoring with multiple SINEC NMS Operations  
Practical exercises

### Prerequisites

Knowledge in accordance with the course "Ethernet Fundamentals in Industrial Networks (IK-ETHBAS)":

Participants should be familiar with topologies, transmission methods, addressing and transport of data, and understand the associated technical vocabulary. It is also helpful to be familiar with the functionality of routers and switches, as well as the OSI reference model.

### Note

Certification (Siemens CEIN-LEVEL):

Following the training, there is an option of taking a certification test. This test is part of the certification to become a "Siemens Certified Expert for Industrial Networks", which consists of several individual tests.

Please note that before the examination you have to identify yourself by showing a valid photo identification.

### Type

Face-to-face training

### Duration

3.5 days

### Language

en